

ABSTRACT

A control system for controlling a multiphase output regulator having a regulated DC output and operating at a switching frequency. The multiphase output regulator including at least two switch arrays to generate individually controllable output phases that combine to form the regulated DC output. The control system comprising a digital controller operable at a sampling frequency greater than the switching frequency. The digital controller responsive to a sense signal corresponding to the regulated output, to generate array duty cycle signals to control each of the switch arrays. The digital controller to control the array duty cycle signals at the sampling frequency and to dynamically set a phase interval between each of the output phases.